North Carolina State Library
Raleigh
N. C.
Doc.
J 2
409/2:35
JUL 18 1985

SCHS STUDIES

A SPECIAL REPORT SERIES BY THE N.C. DEPARTMENT OF HUMAN RESOURCES, DIVISION OF HEALTH SERVICES, STATE CENTER FOR HEALTH STATISTICS, P.O. BOX 2091, RALEIGH, N.C. 27602

No. 35 June,1985

UPDATE ON THE HEALTH STATUS OF AMERICAN INDIANS IN NORTH CAROLINA

Prepared for
North Carolina Commission of Indian Affairs

by

Kathryn B. Surles

As in 1979 (1) and 1982 (2), the State Center for Health Statistics has undertaken analysis of race-specific sociodemographic, natality, mortality, and morbidity data focusing on the relative status of the state's American Indian residents. In addition to this report, which purports to highlight findings for the information of other researchers interested in the health status of N.C. race groups, additional data for 20 counties (those having 300 or more Indian residents in 1980) have been provided to the Commission of Indian Affairs.

In past projects for the Commission, existing data were heavily utilized, one result being that we were unable to study infant mortality in relation to underlying infant and maternal characteristics. In the current effort, we have concentrated our efforts in the utilization of the linked infant death and birth records in order to study outcomes for various subgroups of the 1979-83 birth cohort. Thus, some of the material in this report represents entirely new information relative to infant health among the state's Indian population.

As discussed at length in the previous report (2), race-identity patterns appear to have changed significantly during the 1970s and to have affected dissimilarly the numerators (births, deaths, etc.) and denominators (population counts) of vital statistics rates. Hence, population-based rates for Indians are not reliable and hence are not utilized in this report.

In most of the tables of this report, data are shown separately for reservation and nonreservation Indians; the former are comprised of Indians residing in Graham, Jackson, and Swain counties. Due to the statistical problem of small numbers of events, many of the rates—particularly single-year rates for Indians—may be associated with large random errors.

POPULATION CHARACTERISTICS

At the time of the 1980 Census, residents reporting race as American Indian numbered 64,536 and accounted for 1.1% of the total N.C. population. Fifty-five percent lived in Robeson County and accounted for 35% of that county's population. Another 8.2% lived in the Cherokee Reservation counties of Graham, Jackson and Swain. Other counties with sizable Indian populations include Columbus, Cumberland, Hoke, Jackson, and Scotland. (2)

For the purposes of this report, health indicators from the 1980 Census (3-5) have been grouped according to the nature of the sociodemographic characteristic reported. In some cases, the Census has reported data for American Indians, Eskimos, and Aleuts as a group, but as shown in Table 1, the number of Eskimos and Aleuts is extremely small, accounting for less than 0.2% of the combined group.

In the indicators of Table 2, "own children" refers to sons and daughters, including stepchildren and adopted children, of the householder who are single (never married) and under 18 years of age. The following statements summarize the several groups of 1980 Census indicators, arranged alphabetically:

Demographics — American Indians residing in N.C. in 1980 were more apt than their black or white counterparts to be young and male, and they were far more likely to live in rural areas.

Economics — Earnings and income levels of Indian residents were well below those of whites but about the same as those of blacks except that Indians in female-headed families were slightly more likely than their black counterparts to live in poverty. On the other hand, among families and unrelated individuals below poverty in 1979, median income levels were higher for Indians than for either whites or blacks even though Indians were less likely than blacks to receive public assistance income. Among whites below poverty, the low percentage receiving public assistance income would reflect, to some extent, the older age of the white population; more whites than others were recipients of social security income.

Education — Indians, and particularly males, were less well educated than blacks and whites.

Family Structure — Indian families were more likely than white families but less likely than black families to be headed by a female; they were more apt than either white or black families to include children, two-thirds of whom lived in married-couple families. On the average, Indian families were larger than black families and much larger than white families.

Fertility — In terms of children ever born, Indian fertility was greater than that of white and black women.

Housing — While overcrowding appeared more frequent among Indians, lack of complete plumbing was less a problem of Indians than of blacks. Indians were also more likely than blacks to own their homes and at a slightly higher median value.

Labor Force Participation — Blacks, whites and Indians were about equally likely to be in the labor force though Indian wives were some less likely than black wives to have worked. Among women heads of household 16 and over with children under 6, blacks and Indians were less likely than whites to work. Compared to both blacks and whites, Indian workers were younger and less well educated. Compared to whites, Indians and blacks were about half as likely to work in traditional "white collar" occupations. Blacks more than whites and Indians more than blacks worked in manufacturing and related occupations and in farming, forestry and fishing. Indians were less likely than blacks to work in "service" jobs while Indians and blacks worked for some level of government more often than whites.

Marital Status — Less than whites but more than blacks, Indian females 15 and older were likely to be married and living with their husbands. They were less likely to be widowed, about equally likely as others to be divorced and some less likely than whites to have married more than once.

(Note: For 17 counties having 400 or more Indian residents in 1980, selected sociodemographic and housing data for Indians are available in census publications (3,4). Those counties are: Columbus, Cumberland, Forsyth, Guilford, Halifax, Harnett, Hoke, Jackson, Mecklenburg, Onslow, Richmond, Robeson, Sampson, Scotland, Swain, Wake, and Warren.)

NATALITY AND INFANT MORTALITY

The following explanations apply to the data of Tables 3-14:

Race — Since this report uses matched birth and infant death records (except in Table 9), data will reflect infant's race at birth and not as listed on the death certificate.

In past reports (1,2), we have noted discrepancies between race at birth and race at death, usually in the direction of some infants being counted Indian at birth but white at death. Race at death is that recorded by the funeral director.

Births Under 2500 Grams — Definition of prematurity recommended by the World Health Organization, 1950.

Mothers With Risk Factor(s) — Mothers in the following categories: age below 18 or above 34, education under 9 or 9-11 years, unmarried legal status, parity greater than 3, history of a prior fetal death or death of a liveborn.

Mothers With Inadequate Prenatal Care — Based on an index developed by Kessner (6) that takes into account month of first visit, number of visits and gestational age at delivery.

Fetal Death Rate — Fetal deaths (stillbirths) per 1,000 deliveries (live births plus fetal deaths).

Neonatal Death Rate — Deaths under 28 days per 1,000 live births.

Postneonatal Death Rate — Deaths 28 days to 1 year per 1,000 neonatal survivors (live births minus neonatal deaths). Data cover only the four birth years 1979-1982 because 1984 postneonatal deaths among the 1983 birth cohort are not yet complete.

Infant Death Rate — Deaths under 1 year per 1,000 live births. For the reason cited above for postneonatal deaths, infant death rates cover only the four birth years 1979-1982.

Percent Change — A "p-value" given in parentheses in Tables 10-14 indicates the level at which the difference between the beginning and ending rates is statistically significant, i.e., the chances that the measured difference does not represent a "true" difference are less than 5 in 100 ($p < .05$) or 1 in 100 ($p < .01$). The absence of a p-value indicates that the difference is not statistically significant even though the absolute difference in rates may be large. This circumstance occurs when the numbers of events are not sufficiently large to support findings for a "true" difference.

Birth Characteristics and Infant Outcome

Separately for blacks, whites, and American Indians, Tables 3-6 show annual numbers and multi-year numbers and rates for categories of live births and fetal, neonatal, and postneonatal deaths. As shown by the 1979-83 percentages of Table 3, Indians were more likely than whites but less likely than blacks to have a low-weight infant, to be of low maternal age (under 18), or to give birth out of wedlock; these differences are all statistically significant at $p < .01$. However, Indian mothers were more likely than either black or white mothers to be poorly educated ($p < .01$) and more likely than white mothers to be of high parity or to have had one or more previous liveborn infants to die ($p < .01$). Taken as a whole, maternal risk factors were present among 70% of Indian mothers versus 44% of white mothers and 73% of black mothers. Each of these differences is statistically significant at $p < .01$.

Comparing the 1979-83 fetal death rates of Table 4, the Indian rate is found to be significantly higher than the rate for whites ($p < .05$) and significantly lower than the rate for blacks ($p < .01$). At mature weights (2500+ grams), however, the Indian rate was significantly higher than either the white or black rate ($p < .05$). For the several maternal characteristics examined, the Indian fetal death rate was significantly higher than the corresponding white rate for mothers 18-34, mothers who were married, and mothers with no history of a previous liveborn who died. Finally, among mothers with one or more risk factors, the fetal death rate for Indians was higher than that for whites but significantly lower than that for blacks ($p < .05$).

Examining the neonatal death rates of Table 5, the total Indian rate is again found to be significantly higher than the rate for whites ($p < .01$) and significantly lower than the rate for blacks ($p < .05$). However, at weights under 1500 grams and 2500+ grams, the Indian rates exceeded those of both whites and blacks, though not significantly. The reader will also note the high rate among white infants weighing 1500-2499 grams; that rate (23.9) is significantly higher than the black rate (14.5) at $p < .01$. Meanwhile, among mothers with one or more risk factors, the neonatal death rate is found to be significantly lower for Indians than for blacks ($p < .01$).

Finally, from Table 6, the postneonatal death rate of Indians is found to be particularly excessive, the excess over the white rate being statistically significant at a very high level ($p < .001$). Compared to either whites or blacks, an Indian excess is noted in ***all*** weight and maternal categories, and the Indian-white differences are significant for all categories involving 10 or more Indian deaths. Significant Indian-black differences are also observed among mothers under 18 and parity 1 mothers; the difference among mature-weight infants barely misses statistical significance.

To summarize the data of Tables 3-6:

- Low education (under 9 and 9-11 years) is far more prevalent among Indian mothers (47%) than among white mothers (25%) or black mothers (36%).
- Comparing levels of prematurity, births under age 18, births out of wedlock, and fetal and neonatal mortality, Indian rates are significantly higher than those of whites and significantly lower than those of blacks.
- At mature weights (2500+ grams), Indian fetal and neonatal death rates are higher than those of both blacks and whites; the fetal death rate differences are statistically significant.
- At low levels of education, the fetal and neonatal death rates of Indians are more like those of whites than those of blacks.

- Compared to whites, Indian fetal and neonatal excesses involve low-risk maternal categories to a large extent.

- In total and in ***ALL*** birthweight and maternal categories, Indian postneonatal death rates are higher than those of both whites and blacks. Compared to either whites or blacks, statistically significant Indian excesses occurred among young mothers and para 1 mothers.

Prenatal Care and Infant Outcome

Compared to white mothers giving birth during 1979-83 (Table 7), Indian mothers were much less likely to have had adequate care and far more likely to have had intermediate or inadequate care. Compared to blacks, Indians were to some extent more likely to have had adequate care with nonreservation Indians being less likely to have had inadequate care. Inadequate care appears especially prevalent among reservation Indian mothers.

For reservation Indians, the death rates of Table 7 are based on small numbers and involve inconsistent patterns. For whites, blacks, and nonreservation Indians, however, there is generally an inverse relationship between level of prenatal care and each of fetal, neonatal, and postneonatal mortality. In the presence of adequate care, the fetal death rate of nonreservation Indians appears especially low, being lower than that of either whites or blacks. At the same time, in the presence of inadequate care, the fetal, neonatal, and postneonatal mortality of nonreservation Indians appears higher than that of either whites or blacks. Thus it would seem that the relationship between prenatal care and pregnancy outcome is generally stronger for nonreservation Indians than for others.

Among the 20 counties selected for study, the numbers of Indian births are generally quite small, as shown in Table 8. However, it is noted that Robeson County—accounting for 54% of the state's 1979-83 Indian live births—largely accounts also for the relatively favorable prenatal care status of Indians versus blacks. During the period of study, Robeson Indians were far less likely than Robeson blacks to have had inadequate care, and that difference is statistically significant at a very high level ($p < .001$).

SIDS Deaths

For the state and selected counties, Table 9 shows for each race group the 1979-83 number of deaths and death rates for sudden infant death syndrome as the underlying cause. As noted in previous reports (1,2), Indian infants appear to die from SIDS more often than black infants and far more often than white infants, which would partially account for excessive postneonatal loss among Indians. During the 1979-83 period, the SIDS rate for Indians was 3.5 per 1,000 live births, exceeding the black rate by 30% and the white rate by 169%. However, among Robeson infants, who accounted for 11 of the state's 27 Indian deaths from SIDS, the black rate (3.7) exceeded the Indian rate (2.6). The reader will also note the exceptionally high black rate (7.7) in Columbus as well as Scotland's excesses in all race groups.

Recent Trends

As shown in Table 10, the numbers of live births in each race group generally fluctuated over the period of study with relatively little net change between 1979 and 1983. At the same time, prematurity declined slightly, except among reservation Indians, and the percentages of mothers with one or more risk factors also declined. Reductions in prematurity and maternal risk were greater for whites than for others, and those changes were statistically significant. Table 10 also reveals that, for both whites and blacks, the percentage of mothers with inadequate care dropped significantly between 1979 and 1983. Further, the reader will note that, throughout the period of study, levels of prematurity, maternal risk, and inadequate care were ***consistently*** lower among whites and higher among blacks than among nonreservation Indians.

Due to the small numbers of annual deaths among Indians, Indian death rates are not given in Tables 11-14 (see table footnotes). Rates for whites and blacks reveal the following:

- Whites have recently experienced statistically significant reductions in fetal mortality (Table 11).

- Blacks have recently experienced statistically significant reductions in neonatal and postneonatal mortality (Tables 12 and 13).

- Among white premature infants, the postneonatal death rate rose 50% between 1979 and 1982 (Table 13); the increase falls just short of being statistically significant.

INDUCED ABORTIONS

Table 15 shows the numbers of 1983 resident and occurrence abortions for the state and selected counties. Half of Indian abortions were to Robeson residents, and half of Indian abortions occurred in Cumberland County. In 1980, the numbers of resident and occurrence Indian abortions were 227 and 232 respectively (2).

As shown in Table 16, the fraction of total reported pregnancies that resulted in abortions is far lower for Indians than for whites or blacks. Unlike whites and blacks, nonreservation Indians experienced a sizable increase (12%) in the fraction between 1980 and 1983; however, numbers involved in the county-level increases were generally small. Mecklenburg County's increases—from 9 to 20 in the number of abortions and from 243 to 465 in the fraction—were the outstanding increases for Indians, and these coincided with increased numbers and fractions among white and black Mecklenburg residents as well.

MORTALITY

As previously noted, the reported race of a decedent is that recorded by the funeral director; thus, it may sometimes be only that person's judgement rather than information from informed sources. The resulting errors in mortality statistics are particularly bothersome for Indians since the number of deaths is relatively small compared to the numbers for whites and blacks.

Keeping this in mind, the reader will find state and county race-specific death counts and median ages at death tabulated in Table 17. Of the 707 Indian deaths during 1982-83, two-thirds were to residents of Robeson County.

Comparing 1979-81 and 1982-83 median ages at death, it is seen that the increase was greater for blacks and Indians (2 years) than for whites (1 year), but the median for whites remains 5 years higher than that for blacks and 10 years higher than that for Indians. The median for reservation Indians actually declined 2 years between 1979-81 and 1982-83, and the median for Robeson Indians rose by only 1 year. Many of the other county-level medians are based on extremely small numbers.

For each race group, Table 18 shows 1982-83 age-specific percentage distributions of deaths and median ages at death by underlying cause of death. As previously observed (1), Indian decedents were more likely than others to have died of violent causes and less likely to have died of cancer. Compared to others, reservation Indian decedents were especially likely to die of diabetes but less likely to die of heart disease, stroke and influenza/pneumonia.

When the percentage distributions of 1982-83 deaths are compared to those in 1977 (1), it is seen that all race groups but especially Indians experienced reduced percentages due to accidents; the Indian percentage due to motor vehicle accidents dropped 24% and the percentage due to non-motor-vehicle accidents dropped 40%. Suicide and homicide percentages for Indians also declined, by 24 and 48 percent respectively.

The trouble with percentage distributions is that, when one percentage goes down, another must go up. Hence, all race groups and especially Indians experienced increased percentages due to cancer; the Indian percentage for cancer and heart disease both rose by a third. Whites, blacks and Indians all experienced reductions in the percentage due to stroke, and Indians also experienced a reduced percentage due to atherosclerosis.

Examining the median ages of Table 18, it is seen that reservation Indian decedents were particularly young in the case of death from stroke, diabetes and non-motor-vehicle accidents. Also, the median age of nonreservation Indian decedents was at least 5 years below average in the case of death from heart disease, diabetes, pneumonia/influenza, non-motor-vehicle accidents, and suicide. Still, compared to median ages during 1979-81 (2), 1982-83 medians were higher in the case of nonreservation Indian deaths from motor vehicle and other accidents as well as homicide.

COMMUNICABLE DISEASES

As shown by the frequencies of Table 19, some of the more notable recent changes in reported cases involve venereal diseases: reduced gonorrhea among whites and nonreservation Indians, increased syphilis among blacks, and increased nonspecific urethritis in each race group, especially blacks. For each race, cases of salmonellosis rose, and serum hepatitis rose while infectious hepatitis declined. Aseptic meningitis increased substantially among blacks and whites while H. Influenza meningitis cases increased among nonreservation Indians. Blacks and whites also experienced reduced cases of Rocky Mountain spotted fever.

Concerning black and white reductions in tuberculosis, some portion of the decrease is due to required verification of the diagnosis, beginning in 1981. Similarly, the sharp increase in nonspecific urethritis may be attributable to two reporting factors: reporting was not ***required*** until January 1984 and, due to improved diagnostic techniques, some cases formerly reported as gonorrhea may now be classified as nonspecific urethritis. This may also account for some of the white and Indian decline in gonorrhea.

SUMMARY

The data of this report provide both encouraging and discouraging information about the relative health status of the state's American Indian residents. On the positive side:

— Abortion utilization remains law.

— Median age at death is increasing, and the percentage of deaths due to violent causes has declined.

— Nonreservation Indians have recently experienced a substantial decline in reported cases of gonorrhea.

But on the negative side:

— Low education remains a particular problem of Indians—in the general population, among workers, and among the mothers of newborns.

— Relatively large family size and overcrowding persist.

— Deaths from SIDS, violent causes, and diabetes remain excessive.

— Inadequate prenatal care appears especially prevalent among reservation Indian mothers.

— Excesses in fetal and neonatal mortality largely involve mature-weight infants and low-risk mothers.

— Excesses in postneonatal mortality involve all weight and maternal categories, especially mature-weight infants and young mothers.

— Infant loss among Indians is particularly excessive in the presence of inadequate prenatal care

Findings for infant loss among Indians are especially interesting; excesses are notable among mature-weight infants and low-risk mothers, but at the same time, involve mothers with inadequate prenatal care. This suggests that newborn sociomedical factors are not the larger problem; rather, environmental and general medical-care factors—as "represented by" level of prenatal care—are issues that need to be addressed. That prenatal care is a surrogate for a much broader spectrum of care-related factors seems an entirely reasonable premise.

REFERENCES

(1) N.C. Department of Human Resources, Division of Health Services, Public Health Statistics Branch. "Perspective....Health Status of American Indians in North Carolina," *PHSB Studies*, No. 15, June 1979.

(2) State Center for Health Statistics, "Update on Health Status of American Indians in North Carolina," prepared for North Carolina Commission of Indian Affairs, Raleigh, August 1982. (Mimeographed.)

(3) U.S. Department of Commerce, Bureau of the Census. *General Population Characteristics: North Carolina*, PC 80-1-B35, June 1982.

(4) U.S. Department of Commerce, Bureau of the Census. *General Housing Characteristics: North Carolina*, HC80-1-A35, April 1982.

(5) U.S. Department of Commerce, Bureau of the Census. Detailed Population Characteristics: North Carolina, PC80-1-D35 (2 volumes), October 1983.

(6) Kessner, D.M.; Singer, J.; Kalk, C.E.; Schlesinger, E.R. *Infant Death: An Analysis of Maternal Risk and Health Care*. Contrasts in Health Status, Volume 1. National Academy of Sciences, Institute of Medicine, Washington, D.C. 1973.

TABLES

Digitized by the Internet Archive
in 2011 with funding from
State Library of North Carolina

http://www.archive.org/details/updateonhealthst00surl

Table 1

Census Counts by Race
North Carolina 1980

Census Counts	Whites	Blacks	American Indians	Eskimos and Aleuts
Total Persons	4,457,507	1,318,857	64,536	116
Persons in Households	4,321,132	1,266,167	63,190	100
Households* (Occupied Housing Units)	1,623,193	392,002	17,962	29
Families**	1,252,752	300,887	15,299	11

* A household consists of all the persons who occupy a housing unit.

** A family consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption.

Table 2

Health-related Indicators by Race
North Carolina, 1980 Census

Demographics	Whites	Blacks	American Indians
Persons:			
Percent living in rural areas	54.5	43.1	77.9
Percent under age 18	26.0	35.0	38.8
Percent 65+	10.9	8.6	5.3
Median age	31.4	24.7	23.1
Percent males	48.8	47.5	49.6
Males per 100 females	95.4	90.4	98.4
Persons 5+:			
Percent in same county as in 1975	79.2	85.6	86.2
Males: Percent in correctional institutions	0.4	1.6	1.1
Economics			
Employed persons 16+, 1979:			
Median earnings: males	$12,135	$8,133	$8,227
females	$7,153	$6,062	$5,825
Persons 15+ with income, 1979:			
Median income: males	$10,681	$6,550	$6,870
females	$5,547	$3,997	$4,283
Persons, except as noted :			
Percent below poverty, 1979	10.0	30.4	27.9
Percent below 150% of poverty, 1979	19.9	48.6	47.2
Persons* in families with female head and no husband present:			
Percent below poverty, 1979	21.6	48.9	52.4
Percent below 150% of poverty, 1979	38.7	69.5	72.4
Families and unrelated individuals below poverty, 1979:			
Median income	$3,707	$3,756	$4,188
With children under 18	$4,331	$4,053	$4,713
Percent receiving public assistance income	8.4	18.4	12.4
Percent receiving Social Security income	23.6	17.0	14.7

*Excludes persons in certain group quarters and unrelated individuals under 15.

Table 2 Continued

Education	Whites	Blacks	American Indians
Males 18+: Percent high school graduates	60.9	47.5	41.6
Percent 4+ years college	15.1	5.4	5.1
Females 18+: Percent high school graduates	60.7	49.7	44.3
Percent 4+ years college	11.4	7.0	4.9
Family Structure			
Families:			
Persons per family	3.09	3.80	3.88
Percent married-couple families	87.3	61.5	74.2
Percent headed by a female	10.5	33.8	20.9
Percent with own children under 18	49.2	57.7	66.5
Percent with own children under 6	19.8	24.6	32.4
Percent headed by female with own children under 18	5.5	20.7	13.2
Persons under 18: Percent who are own children in married-couple families	81.6	49.1	66.6
Fertility			
Females 15+: Children ever born per 1,000 women	1,859	2,342	2,614
Females 16-44 in labor force: Children ever born per 1,000 women	1,216	1,754	1,894
Housing			
Occupied housing units:			
Median number of persons	2.39	2.86	3.34
Median number of rooms	5.3	4.9	4.9
Percent with 1.01+ persons per room	2.4	12.4	13.8
Percent without complete plumbing for household's exclusive use	2.2	11.8	8.3
Percent owner-occupied	72.8	51.0	64.4
Median value of owner-occupied units	$38,500	$24,800	$25,700
Median rent for renter-occupied units	$152	$102	$103

Table 2 Continued

Labor Force Participation	Whites	Blacks	American Indians
Persons 16+: Percent in Force, 1980	65.3	61.1	62.3
Wives 16+: Percent in Force, 1979	63.4	70.2	65.3
Civilian Labor Force 16+, 1980: Percent in			
- Managerial or professional specialty	20.5	9.9	9.7
- Technical, sales, and administrative support	28.0	14.9	13.7
- Manufacturing and related*	39.2	48.8	57.5
- Farming, forestry, and fishing	3.1	4.5	6.7
- Service occupations	9.0	21.2	12.0
Female heads of household 16+ with own children under 6 and no husband present:			
Percent in Labor Force, 1980	75.1	61.4	61.7
Employed persons 16+, 1980:			
Percent government workers	14.8	23.0	20.0
Median age: males	36.5	34.1	32.6
females	35.4	33.9	31.8
Percent high school graduates: males	64.9	51.2	43.7
females	70.2	62.0	55.3
Marital Status			
Females 15+:			
Percent single	18.0	33.3	25.1
married	61.3	39.0	52.9
separated	2.6	8.0	5.2
widowed	12.7	14.2	10.3
divorced	5.3	5.5	6.4
Ever-married persons 15+:			
Percent married more than once: males	15.3	12.9	13.0
females	15.4	12.1	13.2

*Precision production, craft, and repair occupations; operators, fabricators, and laborers.

TABLE 3

ANNUAL AND FIVE-YEAR LIVE BIRTHS

NORTH CAROLINA

1983 AND 1979-83

RESIDENT LIVE BIRTHS		TOTAL ANNUAL NUMBER (1)	TOTAL FIVE-YEAR NUMBER (2)	TOTAL FIVE-YEAR RATE* (3)	WHITE ANNUAL NUMBER (4)	WHITE FIVE-YEAR NUMBER (5)	WHITE FIVE-YEAR RATE* (6)	BLACK ANNUAL NUMBER (4)	BLACK FIVE-YEAR NUMBER (5)	BLACK FIVE-YEAR RATE* (6)	INDIAN ANNUAL NUMBER (7)	INDIAN FIVE-YEAR NUMBER (8)	INDIAN FIVE-YEAR RATE* (9)
1. TOTAL		63654	421777	100.0	57446	286117	100.0	24096	124351	100.0	1557	7805	100.0
OCCUR. IN STATE		62694	416790	98.8	56683	282200	98.6	23917	123340	99.2	1547	7776	99.6
OCCUR. OUT OF STATE		960	4987	1.2	763	3917	1.4	179	1011	0.8	10	29	0.4
2. BIRTHWEIGHT													
UNDER 1500 GRAMS		1232	6218	1.5	550	2828	1.0	642	3234	2.6	29	122	1.6
1500-2499 GRAMS		5351	27353	6.5	2849	14496	5.1	2355	12129	9.8	96	524	6.7
2500+ GRAMS		77239	388008	92.0	54030	268685	93.9	21085	108906	87.6	1432	7155	91.7
UNKNOWN		32	198	0.0	17	108	0.0	14	82	0.0	0	4	0.0
MATERNAL CHARACTERISTICS													
3. AGE													
UNDER 18 YEARS	(A)	5407	30517	7.2	2547	14332	5.0	2721	15413	12.4	127	729	9.3
18-34 YEARS		74771	374648	88.9	52224	260308	91.0	20478	104588	84.1	1384	6751	86.5
35+ YEARS	(B)	3671	16378	3.9	2671	11455	4.0	896	4340	3.5	46	324	4.2
UNKNOWN		5	34	0.0	4	22	0.0	1	10	0.0	0	1	0.0
4. EDUCATION													
UNDER 9 YEARS	(C)	3048	17620	4.2	1928	11028	3.9	930	5515	4.4	110	639	8.2
9-11 YEARS	(D)	18365	101339	24.0	10739	58899	20.6	6978	38948	31.3	555	3040	38.9
12+ YEARS		62375	302435	71.7	44750	216014	75.5	16158	79717	64.1	890	4120	52.8
UNKNOWN		66	383	0.1	29	176	0.0	30	171	0.2	2	6	0.1
5. OUT OF WEDLOCK													
YES	(E)	17239	82440	19.5	4160	18836	6.6	12568	61295	49.3	491	2225	28.5
NO		66414	339310	80.4	53285	267265	93.4	11528	63045	50.7	1066	5580	71.5
UNKNOWN		1	27	0.1	1	16	0.0	0	11	0.0	0	0	0.0
6. PARITY													
1		34221	169953	40.3	24562	121129	42.3	8855	44949	36.1	511	2582	33.1
2-3		40096	201910	47.9	27655	138302	48.3	11242	58017	46.7	771	3827	49.0
4+	(F)	9570	49669	11.8	5217	26504	9.3	3995	21344	17.2	275	1396	17.9
UNKNOWN		17	225	0.0	12	182	0.1	4	41	0.0	0	0	0.0
7. PREVIOUS FETAL DEATH													
YES	(G)	13706	68687	16.3	9361	46128	16.1	3987	20697	16.6	233	1290	16.5
NO		70136	353019	83.7	48077	239942	83.9	20106	103631	83.3	1324	6515	83.5
UNKNOWN		12	71	0.0	8	47	0.0	3	23	0.1	0	0	0.0
8. PREVIOUS LIVE BORN NOW DEAD													
YES	(H)	1770	10301	2.4	972	5511	1.9	729	4389	3.5	55	296	3.8
NO		82070	411263	97.5	56464	280429	98.0	23364	119928	96.4	1502	7509	96.2
UNKNOWN		14	213	0.1	10	177	0.1	3	34	0.1	0	0	0.0
9. ANY ONE OR MORE (OF A THRU H)		43644	222520	52.8	24459	124446	43.5	17787	91037	73.2	1073	5465	70.0

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
BOX 2091, RALEIGH, N.C. 27602

* SEE DEFINITIONS

TABLE 4

ANNUAL AND FIVE-YEAR FETAL DEATHS

NORTH CAROLINA

1983 AND 1979-83

RESIDENT FETAL DEATHS	TOTAL ANNUAL NUMBER (1)	TOTAL FIVE-YEAR NUMBER (2)	TOTAL FIVE-YEAR RATE* (3)	WHITE ANNUAL NUMBER (4)	WHITE FIVE-YEAR NUMBER (5)	WHITE FIVE-YEAR RATE* (6)	BLACK ANNUAL NUMBER (4)	BLACK FIVE-YEAR NUMBER (5)	BLACK FIVE-YEAR RATE* (6)	INDIAN ANNUAL NUMBER (7)	INDIAN FIVE-YEAR NUMBER (8)	INDIAN FIVE-YEAR RATE* (9)
1. TOTAL	816	4354	10.2	449	2385	8.3	350	1852	14.7	14	69	11.3
OCCUR. IN STATE	816	4324	-	448	2363	-	349	1844	-	14	69	-
OCCUR. OUT OF STATE	2	30	-	1	22	-	1	8	-	0	0	-
2. BIRTHWEIGHT												
UNDER 1500 GRAMS	423	2236	264.5	215	1069	278.0	198	1097	253.3	5	36	227.6
1500-2499 GRAMS	162	819	29.1	86	463	31.0	74	343	27.5	2	9	16.9
2500+ GRAMS	203	1114	2.9	132	736	2.7	64	332	3.0	7	34	4.7
UNKNOWN	30	185	-	16	95	-	14	80	-	0	10	-
MATERNAL CHARACTERISTICS												
3. AGE												
UNDER 18 YEARS (A)	69	422	13.6	24	154	10.6	45	259	16.5	0	9	12.2
18-34 YEARS	693	3637	9.6	392	2067	7.9	283	1471	13.9	13	73	10.7
35+ YEARS (B)	55	286	17.2	32	158	13.6	22	119	26.7	1	7	21.1
UNKNOWN	1	9	-	1	6	-	0	3	-	0	0	-
4. EDUCATION												
UNDER 9 YEARS (C)	40	240	13.4	20	114	10.2	19	115	20.4	1	9	13.9
9-11 YEARS (D)	197	1209	11.8	92	597	10.0	103	573	14.5	2	32	10.4
12+ YEARS	561	2801	9.2	330	1624	7.5	219	1118	13.8	7	41	9.9
UNKNOWN	20	104	-	7	50	-	9	46	-	4	7	-
5. OUT OF WEDLOCK												
YES (E)	254	1271	15.2	48	247	12.9	201	995	16.0	5	29	12.2
NO	563	3075	9.0	400	2135	7.9	149	852	13.3	9	60	10.4
UNKNOWN	1	8	-	1	3	-	0	5	-	0	0	-
6. PARITY												
1	314	1754	10.2	172	1024	8.4	135	688	15.1	5	33	12.2
2-3	381	1696	9.3	223	1066	7.6	150	780	13.3	5	34	8.1
4+ (F)	119	688	13.7	51	266	10.7	64	377	17.4	4	22	15.1
UNKNOWN	4	16	-	3	9	-	1	7	-	0	0	-
7. PREVIOUS FETAL DEATH												
YES (G)	199	1087	15.6	108	542	11.6	87	512	24.1	3	24	18.1
NO	615	3253	9.1	338	1836	7.6	262	1333	12.7	11	65	9.1
UNKNOWN	4	14	-	3	7	-	1	7	-	0	0	-
8. PREVIOUS LIVE BORN NOW DEAD												
YES (H)	27	175	16.7	13	66	12.2	14	103	22.9	0	1	3.0
NO	787	4164	10.0	433	2309	8.2	335	1742	14.3	14	88	11.1
UNKNOWN	4	15	-	3	8	-	1	7	-	0	0	-
9. ANY ONE OR MORE (OF A THRU H)	532	2892	12.8	243	1313	10.4	277	1495	16.2	11	69	12.7

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
BOX 2091, RALEIGH, N.C. 27602

* SEE DEFINITIONS

TABLE 5

ANNUAL AND FIVE-YEAR NEONATAL DEATHS

NORTH CAROLINA

1983 AND 1979-83

CESIDENT CONATAL CATHS	TOTAL ANNUAL NUMBER (1)	TOTAL FIVE-YEAR NUMBER (2)	TOTAL FIVE-YEAR RATE* (3)	WHITE ANNUAL NUMBER (4)	WHITE FIVE-YEAR NUMBER (5)	WHITE FIVE-YEAR RATE* (6)	BLACK ANNUAL NUMBER (4)	BLACK FIVE-YEAR NUMBER (5)	BLACK FIVE-YEAR RATE* (6)	INDIAN ANNUAL NUMBER (7)	INDIAN FIVE-YEAR NUMBER (8)	INDIAN FIVE-YEAR RATE* (9)
TOTAL	726	3964	9.4	392	2095	7.3	310	1757	14.1	22	90	11.5
BIRTH IN STATE	719	3914	-	387	2053	-	306	1749	-	22	90	-
BIRTH OUT OF STATE	9	50	-	5	42	-	4	8	-	0	0	-
BIRTHWEIGHT												
UNDER 1500 GRAMS	468	2511	403.6	217	1160	410.2	233	1276	395.2	14	58	475.4
1500-2499 GRAMS	81	537	19.6	55	346	23.9	23	176	14.5	3	10	19.1
2500+ GRAMS	167	840	2.2	115	553	2.1	47	264	2.4	5	21	2.9
UNKNOWN	12	76	-	5	36	-	7	39	-	0	1	-
TERNAL CHARACTERISTICS												
AGE												
UNDER 18 YEARS (A)	76	422	13.6	31	166	13.0	44	226	14.7	3	9	12.3
18-34 YEARS	614	3376	9.0	342	1809	6.9	250	1470	14.1	18	76	11.6
35+ YEARS (B)	36	164	10.0	19	96	6.6	16	61	14.1	1	3	9.3
UNKNOWN	0	2	-	0	2	-						
EDUCATION												
UNDER 9 YEARS (C)	36	226	12.8	26	126	11.4	12	93	16.9	0	6	9.4
9-11 YEARS (D)	193	1139	11.2	89	546	9.3	95	555	14.2	9	35	11.5
12+ YEARS	490	2557	6.5	273	1396	6.5	200	1092	13.7	13	47	11.4
UNKNOWN	7	42	-	4	23	-	3	17	-	0	2	-
OUT OF WEDLOCK												
YES (E)	220	1151	14.0	35	223	11.8	174	900	14.7	11	28	12.6
NO	506	2809	6.3	357	1869	7.0	136	856	13.6	11	62	11.1
UNKNOWN	0	4	-	0	3	-	0	1	-	0	0	-
ARITY												
1	279	1431	8.4	151	832	6.9	116	561	12.5	9	27	10.5
2-3	341	1668	9.3	196	1006	7.3	133	807	13.9	11	46	12.0
4+ (F)	108	665	13.4	45	257	9.7	61	369	18.2	2	17	12.2
REVIOUS FETAL DEATH												
ES (G)	186	964	14.0	95	468	10.1	85	477	23.0	6	15	11.6
O	541	2990	6.5	296	1617	6.7	225	1280	12.4	16	75	11.5
NKNOWN	1	10	-	1	10	-						
EVIOUS LIVE BORN W DEAD												
ES (H)	54	316	30.7	24	122	22.1	30	185	42.2	0	7	23.6
O	672	3637	8.8	366	1962	7.0	280	1572	13.1	22	83	11.1
NKNOWN	2	11	-	2	11	-						
ONE OR MORE OF A THRU H)	497	2672	12.0	229	1190	9.6	249	1414	15.5	19	61	11.2

MENT OF HUMAN RESOURCES
ION OF HEALTH SERVICES
91, RALEIGH, N.C. 27602

* SEE DEFINITIONS

TABLE 6

ANNUAL AND FOUR-YEAR POSTNEONATAL DEATHS

NORTH CAROLINA

1982 AND 1979-82

RESIDENT POSTNEONATAL DEATHS	TOTAL ANNUAL NUMBER (1)	TOTAL FOUR-YEAR NUMBER (2)	TOTAL FOUR-YEAR RATE* (3)	WHITE ANNUAL NUMBER (4)	WHITE FOUR-YEAR NUMBER (5)	WHITE FOUR-YEAR RATE* (6)	BLACK ANNUAL NUMBER (4)	BLACK FOUR-YEAR NUMBER (5)	BLACK FOUR-YEAR RATE* (6)	INDIAN ANNUAL NUMBER (7)	INDIAN FOUR-YEAR NUMBER (8)	INDIAN FOUR-YEAR RATE* (9)
1. TOTAL	550	1403	4.2	169	730	3.2	141	611	6.2	18	52	8.4
BIRTH IN STATE	543	1392	-	166	724	-	139	608	-	16	50	-
BIRTH OUT OF STATE	7	11	-	3	6	-	2	3	-	2	2	-
2. BIRTHWEIGHT												
UNDER 1500 GRAMS	44	161	61.5	20	70	52.4	21	106	68.5	3	5	102.0
1500-2499 GRAMS	67	243	11.3	32	109	9.6	33	122	12.7	2	10	23.8
2500+ GRAMS	239	976	3.1	137	549	2.6	87	382	4.4	13	37	6.5
UNKNOWN	0	3	-	0	2	-	0	1	-	0	0	-
MATERNAL CHARACTERISTICS												
3. AGE												
UNDER 18 YEARS (A)	42	183	7.4	18	73	6.3	18	97	7.8	6	13	21.8
18-34 YEARS	296	1179	4.0	160	631	3.1	123	501	6.0	11	37	7.0
35+ YEARS (B)	12	41	3.3	11	26	3.0	0	13	3.8	1	2	7.2
4. EDUCATION												
UNDER 9 YEARS (C)	36	134	9.3	27	83	9.2	6	40	8.9	3	9	17.2
9-11 YEARS (D)	128	568	6.9	68	251	5.3	52	288	9.1	7	25	10.2
12+ YEARS	185	700	2.9	94	396	2.3	82	282	4.5	8	18	5.6
UNKNOWN	1	1	-	0	0	-	1	1	-	0	0	-
5. OUT OF WEDLOCK												
YES (E)	114	461	7.2	21	88	6.1	83	353	7.4	10	20	11.6
NO	236	942	3.5	168	642	3.0	58	258	5.1	8	32	7.2
6. PARITY												
1	105	446	3.5	62	243	2.5	35	183	5.1	7	20	9.7
2-3	183	717	4.5	101	386	3.5	74	301	6.5	7	23	7.6
4+ (F)	62	238	6.0	26	101	4.8	32	127	7.5	4	9	8.1
7. PREVIOUS FETAL DEATH												
YES (G)	64	246	4.5	32	136	3.7	30	99	6.1	2	7	6.7
NO	286	1157	4.1	137	594	3.1	111	512	6.2	16	45	8.8
8. PREVIOUS LIVE BORN NOW DEAD												
YES (H)	14	62	7.5	5	26	6.3	8	31	8.8	1	3	12.8
NO	336	1340	4.1	164	701	3.2	133	580	6.1	17	49	8.2
UNKNOWN	0	1	-	0	1	-						
9. ANY ONE OR MORE (OF A THRU H)	258	1038	5.9	126	477	4.8	115	510	7.1	14	44	10.1

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
BOX 2091, RALEIGH, N.C. 27602

* SEE DEFINITIONS

Table 7

Percentage Distributions of Births and Specified Mortality Rates by Race and Adequacy of Prenatal Care
North Carolina, 1979-83 or 1979-82

	Total	Whites	Blacks	Reservation Indians*	Nonres. Indians
Percentage of 1979-83 Births:	100.0	100.0	100.0	100.0	100.0
Adequate Care	69.0	77.0	51.5	55.7	56.3
Intermediate Care	22.8	17.4	34.2	29.0	32.0
Inadequate Care	6.2	3.7	11.7	12.4	9.0
Unknown Care	2.3	2.1	2.6	2.9	2.7
Fetal Death Rate 1979-83	10.2	8.3	14.7	11.1	11.3
Adequate Care	7.8	6.8	11.5	10.0	5.7
Intermediate Care	12.2	10.9	13.7	4.8	13.0
Inadequate Care	20.3	18.0	22.0	32.6	25.8
Neonatal Death Rate 1979-83	9.5	7.4	14.2	12.6	11.4
Adequate Care	7.5	6.2	12.0	15.1	9.5
Intermediate Care	10.4	9.1	12.1	9.7	9.7
Inadequate Care	16.5	15.3	17.3	11.2	21.8
Postneonatal Death Rate 1979-82	4.3	3.3	6.4	12.5	8.2
Adequate Care	3.0	2.6	4.2	6.4	3.5
Intermediate Care	5.9	4.6	6.8	24.8	13.7
Inadequate Care	11.6	9.6	12.9	14.1	16.2
Infant Death Rate 1979-82	13.9	10.8	20.8	19.6	19.3
Adequate Care	10.6	8.9	16.3	15.9	12.6
Intermediate Care	16.6	13.8	19.4	30.9	23.8
Inadequate Care	28.6	25.9	30.7	14.1	33.8

*Rates for reservation Indians involve very small numbers of deaths: in total, 8 fetals and 9 neonatals in 1979-83, 7 postneonatals and 11 infants in 1979-82.

Table 8

1979-83 Number and Percentage of Mothers With Inadequate Prenatal Care by Race: North Carolina and 20 Selected Counties

Residence	Total		Whites		Blacks		American Indians	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
North Carolina	26,115	6.2	10,586	3.7	14,590	11.7	730	9.4**
Reservation Counties	161	5.6	70	3.3	2	5.4	89	12.4**
Nonreservation Counties	25,954	6.2	10,116	3.6	14,588	11.7	641	9.0**
Selected Counties								
Bladen	197	9.6	41	3.9	155	15.8	1	2.6
Columbus	408	9.8	98	4.2	298	17.6	11	7.9
Cumberland	1,263	4.8	492	3.1	673	7.3	44	8.3**
Forsyth	446	2.9	181	1.7	256	5.2	7	9.9*
Graham	27	5.4	18	4.0	0	0.0	9	19.1*
Guilford	757	3.7	301	2.2	436	6.4	11	7.7*
Halifax	441	9.9	46	3.1	379	13.5	16	9.0**
Harnett	431	9.1	153	4.7	272	20.0	5	7.8
Hoke	114	6.6	14	2.7	70	7.7	29	10.0**
Jackson	67	4.5	34	2.8	2	8.0	31	11.0**
Mecklenburg	2,329	7.6	761	4.0	1,526	13.9	16	9.8*
Moore	256	7.3	116	4.9	137	12.7	1	1.8
Onslow	1,287	8.9	794	7.2	425	13.9	13	14.9
Richmond	277	8.6	72	3.7	201	16.5	3	9.4
Robeson	871	9.5	84	3.8	393	14.7	393	9.3**
Sampson	356	10.0	113	5.7	238	16.3	5	4.7
Scotland	221	8.5	56	4.8	139	11.9	26	10.2**
Swain	67	7.7	18	3.8	0	0.0	49	12.7**
Wake	892	4.3	330	2.3	555	9.6	5	10.6
Warren	78	6.5	8	2.4	67	8.3	3	6.4

*Significantly higher than the percentage for whites, $p<.05$.

**Significantly higher than the percentage for whites, $p<.01$.

Table 9

1979-83 SIDS Deaths and Rates by Race*:
North Carolina and 20 Selected Counties

Residence	Total No.	Total Rate	Whites No.	Whites Rate	Blacks No.	Blacks Rate	American Indians No.	American Indians Rate
North Carolina	720	1.7	358	1.3	331	2.7	27	3.5**
Reservation Counties	7	2.4	4	1.9	0	0.0	3	4.2
Nonreservation Counties	713	1.7	354	1.2	331	2.7	24	3.4**
Selected Counties								
Bladen	3	1.5	0	0.0	3	3.1	0	0.0
Columbus	15	3.6	2	0.9	13	7.7	0	0.0
Cumberland	46	1.8	23	1.5	18	2.0	3	5.7
Forsyth	17	1.1	6	0.6	11	2.2	0	0.0
Graham	1	2.0	1	2.2	0	0.0	0	0.0
Guilford	34	1.7	18	1.3	16	2.3	0	0.0
Halifax	13	2.9	2	1.4	11	3.9	0	0.0
Harnett	8	1.7	4	1.2	4	2.9	0	0.0
Hoke	4	2.3	1	1.9	1	1.1	2	6.9
Jackson	5	3.3	3	2.5	0	0.0	2	7.1
Mecklenburg	33	1.1	6	0.3	24	2.2	2	12.2
Moore	6	1.7	1	0.4	5	4.6	0	0.0
Onslow	21	1.4	13	1.2	7	2.3	0	0.0
Richmond	6	1.9	1	0.5	4	3.3	1	31.3
Robeson	21	2.3	0	0.0	10	3.7	11	2.6
Sampson	5	1.4	3	1.5	2	1.4	0	0.0
Scotland	13	5.0	4	3.4	6	5.1	3	11.7
Swain	1	1.1	0	0.0	0	0.0	1	2.6
Wake	24	1.2	9	0.6	15	2.6	0	0.0
Warren	2	1.7	0	0.0	2	2.5	0	0.0

*The rate is deaths per 1,000 live births, and the year and race apply to the death rather than the corresponding birth.

**Significantly higher than the rate for whites, $p<.01$.

Table 10

Live Births, Percentage Under 2500 Grams,
Percentage to Mothers with Risk Factor(s), and
Percentage to Mothers with Inadequate Prenatal Care
North Carolina, 1979-1983

Indicator and Race	Year of Birth 1979	1980	1981	1982	1983	Percent Change 1979-1983
Number of Births						
Total	83,782	84,481	83,752	85,908	83,854	+0.1
Whites	56,480	57,286	56,756	58,149	57,446	+1.7
Blacks	25,140	24,946	24,756	25,413	24,096	-4.2
Reservation Indians	132	145	143	142	153	+15.9
Nonreservation Indians	1,421	1,425	1,389	1,451	1,404	-1.2
Percent <2500 Grams						
Total	8.1	7.9	7.9	8.0	7.9	-2.5
Whites	6.3	6.1	6.0	6.0	5.9	-6.3 (p<.01)
Blacks	12.5	12.2	12.2	12.4	12.4	-0.8
Reservation Indians	5.3	6.9	9.1	8.5	8.5	+60.4
Nonreservation Indians	8.2	8.3	8.4	8.8	8.0	-2.4
Percent to Mothers With Risk Factor(s)						
Total	53.6	53.1	52.4	52.7	52.0	-3.0 (p<.01)
Whites	44.6	43.9	42.9	43.4	42.6	-4.5 (p<.01)
Blacks	73.1	73.2	72.9	72.3	73.0	-0.1
Reservation Indians	72.7	75.2	79.7	69.7	70.6	-2.9
Nonreservation Indians	69.8	69.8	71.3	67.8	67.6	-3.2
Percent to Mothers with Inadequate Prenatal Care						
Total	6.7	6.5	6.2	5.9	5.7	-14.9 (p<.01)
Whites	4.0	3.9	3.7	3.6	3.3	-17.5 (p<.01)
Blacks	12.8	12.3	11.8	11.0	10.9	-14.8 (p<.01)
Reservation Indians	10.6	14.5	13.3	12.0	11.8	+11.3
Nonreservation Indians	9.4	9.1	8.9	8.1	9.8	+4.3

Table 11
Fetal Death Rates (Numbers of Deaths*) by Race and Year:
Four Birth Cohorts, North Carolina, 1979-1983

	Year of Birth					Percent Change
Total Births	1979	1980	1981	1982	1983	1979-1983
Total	11.0	10.3	10.2	9.9	9.7	-11.8 (p<.01)
Whites	8.9	8.2	8.1	8.4	7.8	-12.4 (p<.05)
Blacks	15.2	14.5	14.2	12.7	13.8	-9.2
Reservation Indians*	(1)	(1)	(0)	(2)	(1)	
Nonreservation Indians*	(14)	(21)	(10)	(16)	(13)	
Births Under 2500 Grams						
Total	84.1	85.1	83.5	82.7	81.6	-3.0
Whites	80.3	81.9	81.3	86.3	81.4	+1.4
Blacks	89.6	89.0	87.0	79.7	83.2	-7.1
Reservation Indians*	(0)	(1)	(0)	(1)	(0)	
Nonreservation Indians*	(8)	(12)	(7)	(9)	(7)	
Mothers Having 1+ Risk Factors						
Total	14.0	12.5	13.2	12.4	12.0	-14.3 (p<.01)
Whites	11.1	9.7	10.9	10.7	9.8	-11.7
Blacks	18.1	16.1	16.6	14.8	15.5	-14.4
Reservation Indians*	(2)	(0)	(0)	(2)	(1)	
Nonreservation Indians*	(13)	(18)	(9)	(14)	(10)	
Mothers With Inadequate Prenatal Care						
Total	21.9	19.2	21.2	17.5	21.6	- 1.4
Whites	20.0	16.3	17.3	16.3	20.0	0.0
Blacks	22.9	21.5	24.7	18.0	22.7	- 0.9
Reservation Indians*	(2)	(0)	(0)	(1)	(0)	
Nonreservation Indians*	(3)	(3)	(2)	(4)	(5)	

*For Indians, the small numbers of deaths render rate comparisons invalid; thus, the numbers of fetal deaths are shown in parentheses.

Table 12
Neonatal Death Rates (Numbers of Deaths*) by Race and Year:
Four Birth Cohorts, North Carolina, 1979-1983

	Year of Birth					Percent Change
Total Births	1979	1980	1981	1982	1983	1979-1983
Total	10.1	9.8	8.7	9.4	8.7	-13.9 (p<.01)
Whites	7.6	8.1	6.9	6.9	6.8	-10.5
Blacks	15.6	13.4	12.5	15.0	12.6	-19.2 (p<.01)
Reservation Indians*	(1)	(2)	(1)	(0)	(5)	
Nonreservation Indians*	(18)	(22)	(9)	(14)	(17)	
Births Under 2500 Grams						
Total	95.8	94.1	86.7	91.2	83.4	-12.9 (p<.05)
Whites	88.7	93.2	84.9	83.9	80.0	-9.8
Blacks	104.2	93.1	89.3	100.5	85.4	-18.0 (p<.05)
Reservation Indians*	(1)	(1)	(1)	(0)	(4)	
Nonreservation Indians*	(14)	(17)	(7)	(10)	(13)	
Mothers Having 1+ Risk Factors						
Total	13.3	11.6	11.4	12.0	11.4	-14.3 (p<.01)
Whites	10.5	9.2	9.4	9.0	9.4	-10.5
Blacks	17.7	15.2	14.3	16.6	14.2	-19.8
Reservation Indians*	(1)	(1)	(1)	(0)	(5)	
Nonreservation Indians*	(10)	(11)	(7)	(11)	(14)	
Mothers With Inadequate Prenatal Care						
Total	16.0	16.5	15.9	20.8	13.3	-16.9
Whites	16.4	16.1	13.8	19.5	10.5	-36.0
Blacks	15.3	17.3	17.5	22.6	14.1	- 7.8
Reservation Indians*	(0)	(0)	(0)	(0)	(1)	
Nonreservation Indians*	(3)	(1)	(3)	(2)	(5)	

*For Indians, the small numbers of deaths render rate comparisons invalid; thus, th numbers of neonatal deaths are shown in parentheses.

Table 13

Postneonatal Death Rates (Numbers of Deaths*) by Race and Year:
Four Birth Cohorts, North Carolina, 1979-1982**

	Year of Birth				Percent Change
Total Births	1979	1980	1981	1982	1979-1982
Total	4.6	4.2	3.9	4.1	-10.9
Whites	3.1	3.3	3.2	3.3	+6.5
Blacks	7.7	6.0	5.4	5.6	-27.3 (p<.01)
Reservation Indians*	(2)	(2)	(0)	(3)	
Nonreservation Indians*	(12)	(11)	(7)	(15)	
Births Under 2500 Grams					
Total	17.7	16.8	17.0	17.8	+0.6
Whites	10.6	14.9	14.8	16.1	+51.9
Blacks	26.0	18.1	18.6	19.0	-26.9
Reservation Indians*	(0)	(1)	(0)	(2)	
Nonreservation Indians*	(2)	(4)	(3)	(3)	
Mothers Having 1+ Risk Factors					
Total	6.5	5.9	5.4	5.8	-10.8
Whites	4.3	5.1	4.8	5.1	+18.6
Blacks	9.0	6.8	6.2	6.4	-28.9 (p<.01)
Reservation Indians*	(2)	(1)	(0)	(3)	
Nonreservation Indians*	(11)	(10)	(6)	(11)	
Mothers With Inadequate Prenatal Care					
Total	11.4	10.4	12.3	12.4	+ 8.8
Whites	5.0	10.9	10.6	12.4	+148.0 (p<.05)
Blacks	15.2	10.0	13.6	12.5	-17.8
Reservation Indians*	(0)	(0)	(0)	(1)	
Nonreservation Indians*	(4)	(2)	(1)	(1)	

*For Indians, the small numbers of deaths render rate comparisons invalid; thus, the numbers of postneonatal deaths are shown in parentheses.

**Since death files for 1984 are not yet closed, postneonatal deaths among the 1983 birth cohort are incomplete.

Table 14

Infant Death Rates (Numbers of Deaths*) by Race and Year:
Four Birth Cohorts, North Carolina, 1979-1982**

	Year of Birth				Percent Change
Total Births	1979	1980	1981	1982	1979-1982
Total	14.7	14.0	12.5	13.5	-8.2 (p<.05)
Whites	10.7	11.3	10.1	10.2	-4.7
Blacks	23.1	19.3	17.8	20.5	-11.3 (p<.05)
Reservation Indians*	(3)	(4)	(1)	(3)	
Nonreservation Indians*	(30)	(33)	(16)	(29)	
Births Under 2500 Grams					
Total	111.8	109.3	102.2	107.3	-4.0
Whites	98.3	106.7	98.5	98.7	+0.4
Blacks	127.4	109.5	106.2	117.6	-7.7
Reservation Indians*	(1)	(2)	(1)	(2)	
Nonreservation Indians*	(16)	(21)	(10)	(13)	
Mothers Having 1+ Risk Factors					
Total	19.6	17.4	16.7	17.7	-9.7 (p<.05)
Whites	14.8	14.2	14.2	14.0	-5.4
Blacks	26.6	21.8	20.4	22.9	-13.9 (p<.05)
Reservation Indians*	(3)	(2)	(1)	(3)	
Nonreservation Indians*	(21)	(21)	(13)	(22)	
Mothers With Inadequate Prenatal Care					
Total	27.2	26.7	28.0	32.9	+21.0
Whites	21.2	26.9	24.3	31.7	+49.5 (p<.05)
Blacks	30.3	27.2	30.8	34.8	+14.9
Reservation Indians*	(0)	(0)	(0)	(1)	
Nonreservation Indians*	(7)	(3)	(4)	(3)	

*For Indians, the small numbers of death render rate comparisons invalid; thus, the numbers of infant deaths are shown in parentheses.

**Since death files for 1984 are not yet closed, postneonatal deaths among the 1983 birth cohort are incomplete.

Table 15

1983 Resident and Occurrence Induced Abortions
by Race: North Carolina and 20 Selected Counties

Residence	Total		White		Black		American Indian	
	Resident	Occurrence	Resident	Occurrence	Resident	Occurrence	Resident	Occurrence
North Carolina	31,892	32,952	20,038	20,660	10,534	10,929	250	252
Reservation Counties	201	11	180	10	8		10	1
Nonreservation Counties	31,691	32,941	19,858	20,650	10,526	10,929	240	251
Selected Counties								
Bladen	124	1	62	1	57		1	
Columbus	188		92		83		8	
Cumberland	1,917	3,295	956	1,618	764	1,322	22	130
Forsyth	1,845	3,161	1,065	2,189	759	936	3	6
Graham	14		14					
Guilford	2,484	4,567	1,394	2,938	1,020	1,531	2	2
Halifax	259	1	133		112	1	4	
Harnett	307		185		113		3	
Hoke	99		49		43		6	
Jackson	150	11	137	10	7		3	1
Mecklenburg	3,269	6,458	1,996	4,218	1,177	2,099	20	36
Moore	224	29	150	27	69	2		
Onslow	633	2,550	397	1,410	176	1,054	2	8
Richmond	154	6	100	4	53	2		
Robeson	429	145	152	72	143	38	121	35
Sampson	218	29	92	8	120	21	2	
Scotland	163	8	82	5	68	2	7	1
Swain	37		29		1		7	
Wake	2,821	4,866	1,808	3,157	883	1,523	7	7
Warren	89		39		45			

Table 16

1980 and 1983 Resident Abortion Fractions* by Race:
North Carolina and 20 Selected Counties

Residence	Total 1980	Total 1983	White 1980	White 1983	Black 1980	Black 1983	American Indian 1980	American Indian 1983
North Carolina	272.7	273.6	256.9	257.1	302.0	301.2	127.2	137.2
Reservation Counties	243.5	252.8	270.9	292.7	538.5	615.4	109.8	61.0
Nonreservation Counties	272.9	273.7	256.8	256.9	302.0	301.0	128.9	144.8
Selected Counties								
Bladen	183.8	244.1	190.8	247.0	164.6	234.6	142.9	100.0
Columbus	149.7	182.5	137.5	171.0	165.4	184.4	105.3	222.2
Cumberland	266.9	258.9	231.6	223.3	301.0	290.3	148.1	148.6
Forsyth	335.9	365.2	311.3	329.1	375.4	432.2	230.8	142.9
Graham	82.6	128.4	70.7	145.8	-	0.0	200.0	0.0
Guilford	388.0	378.3	369.9	337.9	408.3	442.1	136.4	66.7
Halifax	189.8	233.3	210.3	322.0	179.6	473.4	54.1	102.6
Harnett	228.4	242.5	207.8	217.6	264.6	292.0	181.8	187.5
Hoke	206.3	235.7	236.6	312.1	218.5	210.8	98.6	109.1
Jackson	309.9	321.9	341.3	351.3	636.4	700.0	59.7	47.6
Mecklenburg	294.4	344.5	285.3	338.2	302.1	350.0	243.2	465.1
Moore	234.6	242.9	226.4	235.8	249.2	256.5	83.3	0.0
Onslow	163.7	165.0	145.9	139.6	215.8	206.6	0.0	100.0
Richmond	199.3	211.2	191.8	229.4	198.7	188.6	200.0	0.0
Robeson	192.4	195.8	272.0	273.4	203.7	217.3	130.0	125.9
Sampson	249.5	242.5	204.0	192.1	306.7	301.5	100.0	117.6
Scotland	231.8	241.8	227.0	268.9	255.6	226.7	120.7	112.9
Swain	181.4	168.2	212.4	224.8	0.0	500.0	137.9	78.7
Wake	391.1	396.2	376.5	375.3	421.5	428.4	333.3	350.0
Warren	225.9	281.6	233.0	371.4	227.1	226.1	62.5	0.0

*Numbers of reported abortions per 1,000 reported pregnancies (live births plus fetal deaths plus abortions).

Table 17

1982-83 Number of Resident Deaths and 1979-81/1982-83
Median Ages at Death by Race:
North Carolina and 20 Selected Counties

Residence	Number of Deaths, 1982-83				Median Age at Death							
					Total		Whites		Blacks		American Indians	
	Total	Whites	Blacks	American Indians	79-81	82-83	79-81	82-83	79-81	82-83	79-81	82-83
North Carolina	98,723	74,671	23,273	707	69	71	71	72	65	67	60	62
Reservation Counties	768	672	20	75	72	73	73	74	66	73	63	61
Nonreservation Counties	97,955	73,999	23,253	632	69	71	71	72	65	67	60	62
Selected Counties												
Bladen	581	361	217	3	69	70	72	72	65	68	71	55
Columbus	1,022	709	295	18	68	70	69	72	65	67	67	73
Cumberland	2,571	1,701	823	32	63	64	65	66	61	62	45	57
Forsyth	4,183	3,030	1,147	1	70	71	72	72	66	68	19	25
Graham	109	103	1	5	73	72	73	73	-	51	68	57
Guilford	5,251	4,063	1,177	8	70	71	72	73	66	66	37	45
Halifax	1,207	638	557	11	69	70	72	73	64	66	50	79
Harnett	1,141	872	267	2	68	69	69	70	61	64	38	45
Hoke	295	142	139	14	67	68	69	73	66	66	53	57
Jackson	399	359	14	26	72	74	73	74	67	73	62	57
Mecklenburg	5,854	4,116	1,724	4	68	69	71	72	61	64	26	63
Moore	1,120	877	240	3	71	72	73	72	67	70	49	77
Onslow	940	753	184	0	63	65	65	66	59	58	63	-
Richmond	891	605	284	1	68	70	70	70	66	68	73	85
Robeson	1,799	846	483	470	67	69	71	71	65	68	62	63
Sampson	993	658	323	12	68	70	69	71	66	67	66	67
Scotland	532	315	203	14	66	68	68	71	64	66	60	51
Swain	260	210	5	44	71	73	73	74	60	75	64	66
Wake	3,833	2,793	1,030	5	68	69	70	71	65	66	53	48
Warren	375	148	224	3	71	71	74	73	67	70	56	58

Table 18

1982-83 Deaths, Percentage Distributions, and Median Ages
at Death by Underlying Cause: North Carolina Age-Race Groups

Age and Race	Total Deaths*	Percentage of Total Deaths										
		Heart Disease	Stroke	Athero-sclerosis	Total Cancer	Lung Cancer	Diabetes Mellitus	Pneumonia/ Influenza	M V Accidents	Other Accidents	Suicide	Homicide
All Ages												
Total	98,723	37.1	9.3	1.1	20.8	5.5	1.7	2.6	2.7	2.9	1.6	1.2
Whites	74,671	38.9	9.0	1.1	21.1	5.9	1.4	2.7	2.7	2.6	1.9	0.7
Blacks	23,273	31.7	10.2	1.0	20.2	4.5	2.3	2.4	2.5	3.8	0.6	2.7
Res. Indians	75	25.3	2.7	1.3	14.7	2.7	6.7	1.3	5.3	9.3	0.0	4.0
Nonres. Indians	632	33.5	9.3	1.3	13.1	3.0	3.5	2.7	7.0	4.0	1.7	3.6
0-4												
Total	2,644	2.3	0.4	0.0	0.8	0.0	0.0	1.6	2.8	5.2	0.0	1.4
Whites	1,435	2.3	0.6	0.0	1.0	0.0	0.1	1.3	3.3	4.7	0.0	0.7
Blacks	1,152	2.3	0.2	0.0	0.7	0.0	0.0	1.8	2.3	5.8	0.0	2.4
Res. Indians**	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nonres. Indians	42	0.0	0.0	0.0	0.0	0.0	0.0	7.1	2.4	10.0	0.0	0.0
5-17												
Total	925	3.4	1.0	0.0	9.2	0.0	0.3	0.9	37.5	20.6	5.2	4.3
Whites	647	3.4	1.2	0.0	9.3	0.0	0.2	0.8	42.0	17.9	6.3	2.2
Blacks	260	3.5	0.4	0.0	9.6	0.0	0.8	1.2	25.4	27.7	1.9	10.0
Res. Indians	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0
Nonres. Indians	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	58.3	8.3	8.3	0.0
18-64												
Total	31,375	30.1	4.8	0.3	26.0	7.9	1.8	1.3	6.0	4.8	3.9	3.3
Whites	22,030	31.6	3.8	0.3	27.7	8.8	1.5	1.0	6.5	4.3	5.0	2.1
Blacks	8,991	26.5	7.1	0.3	22.2	6.0	2.4	2.0	4.7	5.8	1.3	6.1
Res. Indians	30	16.7	3.3	0.0	13.3	0.0	13.3	0.0	10.0	13.3	0.0	10.0
Nonres. Indians	292	30.5	5.1	0.3	13.0	3.8	3.8	1.4	11.6	5.5	3.1	7.5
65+												
Total	63,779	42.5	11.9	1.6	19.3	4.7	1.7	3.3	0.5	1.6	0.4	0.1
Whites	50,559	43.5	11.5	1.5	18.9	4.9	1.5	3.5	0.5	1.5	0.5	0.1
Blacks	12,870	38.6	13.5	1.6	20.7	3.9	2.5	2.7	0.5	1.8	0.1	0.2
Res. Indisns	34	41.2	2.9	2.9	20.6	5.9	2.9	2.9	0.0	5.9	0.0	0.0
Nonres. Indians	286	43.0	15.4	2.4	15.7	2.8	3.8	3.5	0.7	1.4	0.3	0.3
Medisn Age												
Total	71	73	78	83	68	66	70	79	28	54	44	33
Whites	72	74	80	83	68	66	71	81	28	57	45	34
Blacks	67	71	73	80	67	64	67	71	30	47	35	31
Res. Indians	61	70	59	89	71	76	57	70	30	30	-	48
Nonres. Indians	62	68	74	83	65	63	65	71	28	30	25	40

*Includes deaths due to unliated causes.
**All deaths in thia group were due to unlisted causes.

Table 19

Reported Communicable Diseases by Race:
North Carolina, 1979-81 and 1982-84

Selected Diseases*	Total		Whites		Blacks		Reservation Indians		Nonreservation Indians	
	1979-81	1982-84	1979-81	1982-84	1979-81	1982-84	1979-81	1982-84	1979-81	1982-84
Amebiasis	48	30	30	24	16	5	0	0	1	0
Encephalitis, Primary	122	128	100	100	19	20	3	5	0	3
Hepatitis:										
Infectious**	1,057	388	874	312	168	68	0	1	7	2
Serum	1,121	1,319	795	866	307	430	0	2	6	9
Type Unspecified	554	360	436	276	113	76	0	1	3	6
Malaria	40	28	17	12	5	6	0	0	1	0
Meningitis:										
Aseptic	749	1,116	578	864	162	246	1	1	4	4
H. Influenza	474	536	310	370	157	151	0	0	4	14
Pneumococcus	143	138	83	81	59	56	0	0	1	1
Meningococcol Infection	322	310	231	224	88	77	0	0	2	6
Rocky Mountain Spotted fever	868	613	776	555	90	55	0	0	1	3
Salmonellosis	2,689	3,070	1,855	2,050	795	958	1	7	26	45
Shigellosis	966	815	547	389	397	405	1	1	20	18
Typhoid	12	9	4	4	3	4	0	0	1	0
Whooping Cough	78	122	39	76	38	44	1	0	0	2
T B Verified***	3,033	2,342	1,134	843	1,800	1,402	1	4	20	32
Venereal Diseases:										
Syphilis (All Stages)	4,791	5,549	888	852	3,843	4,653	0	1	16	16
Gonorrhea, (All Sites)	120,916	120,719	22,305	19,462	96,986	100,222	41	41	845	588
Nonspecific Urethritis#	12,336	20,698	4,930	7,191	7,231	13,292	0	0	53	62

*At least one Indian case reported during 1979-81.

**Of a cyclical nature, this disease may be expected to increase in the not-too-distant future.

***Some portion of the decrease in tuberculosis may be attributed to closer attention to the accuracy of the diagnosis, beginning in 1981.

#This disease was not required to be reported until January 1984. Improved techniques for the diagnosis of gonorrhea may also have contributed to the increase in nonspecific urethritis.

STATE LIBRARY OF NORTH CAROLINA
3 3091 00747 9827

Department of Human Resources
Division of Health Services
State Center for Health Statistics
P.O. Box 2091
Raleigh, N.C. 27602-2091
919/733-4728

BULK RATE
U.S. Postage PAID
Raleigh, N.C. 27602-2091
Permit No. 1862

CHERYL W. MCLEAN
ASST. DOCUMENTS LIBRARIAN
DIVISION OF STATE LIBRARY
ARCHIVES/LIBRARY BLDG.

800 copies of this public document were printed at a cost of $160 or 20¢ per copy.